

A NEW SUBSPECIES AND OTHER NOMENCLATURAL CHANGES
IN THE SOLIDAGO ARGUTA COMPLEX

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Since the treatment of the Solidago arguta complex will be published in parts with the keys and description of taxa last, it has become necessary to propose the following changes and new subspecies. Table 1 provides the synonymy to facilitate usage of several current treatments.

SOLIDAGO ARGUTA ssp. BOOTTII (Hook.) G. Morton, stat. nov. S. boottii Hook. Comp. Bot. Mag. 1: 97. 1835. as to type, not of authors.

The fragmentary type on a mixed sheet is clearly identifiable as the specimen collected by Drummond in Louisiana. The few remaining upper cauline leaves possess hairs on the abaxial midvein, which indicates that the name should be applied to those plants that were previously referred to as S. strigosa Small. This application is further supported by the fact that all herbarium specimens from Louisiana have hairs on the midveins.

SOLIDAGO ARGUTA ssp. CAROLINIANA (Gray) G. Morton, stat. nov. S. arguta var. caroliniana Gray, Syn. Fl. N. Am. 1(2): 155. 1884.

This taxon is composed of both diploid ($2n=18$) and tetraploid ($2n=36$) individuals. In my dissertation I considered individuals of the different ploidy levels as distinct entities and annotated them as S. vaseyi Heller ($2n=36$; basionym, S. arguta var. caroliniana) and a new taxon under S. arguta, using the subspecific epithet austrina ($2n=18$). Additional material that has come to my attention indicates that the distinctiveness was due more to the populations available for study than to the actual situation.

SOLIDAGO ARGUTA ssp. PSEUDOYADKINENSIS G. Morton, ssp. nov.

Caules e caudice verticali brevissimo perenni lateralites adscendentes-erecti (rhizomate horizontali nullo); folia basalia elliptica, glabra, laminis plerumque minus quam 3 cm latis, saepissime 4 ad 6-

plo longioribus quam latis, in petiolum alatum contractis; involucris 4-6.5 mm altis; ligulis plerumque 4-6; achaeniis strigosis. $2n=18$.

TYPE: North Carolina; Bladen County, sandhill, 5.2 mi. south of Ammon on Route 242, July 18, 1969, G. Morton #3765. Holotype TENN; Isotypes NY, GH, SMU.

DISTRIBUTION: Open woods, wooded borders and clearings, usually in sand or sandy soils; Piedmont and Coastal Plain of North Carolina and northern South Carolina extending also into southeastern Virginia and northeastern Georgia.

This new subspecific name is necessary because the various names previously used are now attributed to other taxa.

SOLIDAGO X YADKINENSIS (Porter) Small (pro sp.)
S. yadkinensis (Porter) Small, Bull. Torr. Bot. Club 22: 368. 1895. S. boottii var. yadkinensis Porter, Bull. Torr. Bot. Club 19: 129. 1892.

The anthers of the disk florets of the holotype are without pollen. Although the holotype could be referable with some stretching to S. arguta ssp. pseudoyadkinensis, the series of specimens collected by Small a year later at the same location clearly indicates that all the collected specimens are part of a hybrid swarm. One of the parents is S. stricta or a closely related species. The other parent might possibly be found among S. juncea, S. arguta ssp. caroliniana or ssp. pseudoyadkinensis. The holotype is some stage of backcrossing with the latter type of parent.

SOLIDAGO X NEUROLEPIS Fernald (pro sp.) S. neurolepis Fernald, Rhodora 38: 212. tab. 421, 422. fig. 1. 1936.

Only two specimens are known for this taxon. The pollen stainability is reduced (78%) in the holotype. The morphology is intermediate enough to suggest that the parents might be sought among S. ulmifolia or S. rugosa ssp. aspera and S. arguta ssp. arguta or ssp. caroliniana.

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Literature Cited

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- Radford, A. F., H. E. Ahles & C. R. Bell. 1968. Manual of the Vascular Flora of the Carolinas. University of North Carolina Press, Chapel Hill.
- Small, J. K. 1933. Manual of the Southeastern Flora. Published by the author, NY.

Table 1. COMPARATIVE SUMMARY OF SYNONYMY IN TREATMENTS IN USE TODAY AND THAT PRESENTED IN THIS PAPER.

Morton	Mackenzie in Small (1933)	Fernald (1950)	Cronq. in Gleason & Cronq. (1963)
<u>S. arguta</u> ssp. <u>arguta</u> *	<u>S. arguta</u>	<u>S. arguta</u>	<u>S. arguta</u>
<u>S. arguta</u> ssp. <u>caroliniana</u> *	<u>S. boottii</u> <u>S. yadkinensis</u> , in part	<u>S. boottii</u>	<u>S. boottii</u> var. <u>boottii</u> and var. <u>caroliniana</u> , in part
<u>S. arguta</u> ssp. <u>boottii</u>	<u>S. strigosa</u>	<u>S. strigosa</u>	<u>S. strigosa</u>
<u>S. arguta</u> ssp. <u>pseudoyadkinensis</u> *	<u>S. yadkinensis</u> , in part	<u>S. yadkinensis</u> , in part	<u>S. boottii</u> var. <u>caroliniana</u>
<u>S. X yadkinensis</u> *	<u>S. yadkinensis</u> , in part	<u>S. yadkinensis</u> , in part	<u>S. boottii</u> var. <u>caroliniana</u> , in part
<u>S. X neurolepis</u>	Not yet named	<u>S. neurolepis</u>	Out of range

* Ahles in Radford, Ahles & Bell (1968) considers all of these taxa as S. arguta.